

## CLAIMS

1. A waste water disposal process in the biosolid method by a line atomizing treatment which comprises:
  - (A) a step in which a gas-dispersion liquid containing a reactive gas consisting of oxygen or a mixed gas of oxygen and ozone in the form of ultrafine bubbles is prepared by dispersing in returned waste water or in clean water at a site other than vessels and pools belonging to a waste water treatment system; and
  - (B) a step in which the aforementioned gas-dispersion liquid is introduced into the waste water in a reaction vessel so as to supply oxygen to microorganisms.
2. The waste water disposal process described in Claim 1 in which the aforementioned gas-dispersion liquid is introduced into the returned waste water or into clean water at a preceding step to the reaction vessel or at a succeeding step to the reaction vessel.
3. The waste water disposal process described in Claim 1 comprising a step in which the biosolid concentration in the aforementioned returned waste water is adjusted to 2 to 200000 mg/liter.
4. The waste water disposal process described in Claim 1 in which the aforementioned reactive gas is a mixed gas of oxygen and ozone and the amount of the ozone is from 0.01 to 0.04 mg/liter relative to the waste water for disposal.
5. The waste water disposal process described in Claim 1 in which the aforementioned reactive gas is a mixed gas of oxygen and ozone

and the concentration of ozone in the reactive gas is from 3 to 6% by volume.

6. The waste water disposal process described in Claim 1 in which the content of the reactive gas in the aforementioned gas-dispersion liquid does not exceed 50% by volume of the gas-dispersion liquid.

7. The waste water disposal process described in Claim 1 in which the bubbles of the reactive gas in the aforementioned gas-dispersion liquid has an average diameter in the range from 1 to 30000 nm.

8. The waste water disposal process described in Claim 7 in which preparation of the aforementioned gas-dispersion liquid is conducted under action of ultrasonic waves having a frequency of 20 to 12000 kHz.

9. The waste water disposal process described in Claim 1 in which the kind, concentration and volume of the reactive gas, the vessel or pool for returning and the duration for introduction are set and controlled unitarily in accordance with the proceeding condition of the waste water treatment.

10. The waste water disposal process described in Claim 1 comprising a step in which the waste water for disposal is adjusted to have a BOD load of 50 to 200000 mg/liter.

11. The waste water disposal process described in Claim 1 in which the ultrafine bubbles of the reactive gas have an average diameter not exceeding 30  $\mu$  m.